

PARASITIC WASPS OF THE GENUS *EUPLECTRUS* WESTWOOD
(HYMENOPTERA: EULOPHIDAE) FROM INDIA¹

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Four new species of the genus *Euplectrus* Westwood namely *E. pantnagarensis*, *E. dubeyi*, *E. viggianii* and *E. longiscapus* are described and illustrated. A key to some Indian species has also been framed.

Key words: Hymenoptera, Eulophidae, *Euplectrus longiscapus* sp. nov., *E. pantnagarensis* sp. nov., *Euplectrus dubeyi* sp. nov., *E. viggianii* sp. nov.

Genus *Euplectrus* Westwood

Euplectrus Westwood 1832, *Phil. Mag.* 3: 128. Type species: (*Euplectrus maculiventris* Westwood) = *Pteromalus bicolor* Swederus; by monotypy.

Diplectron Dahlbom 1857, 292. Synonymy by Gahan & Fagan 1923. Type species: *Pteromalus bicolor* Swederus, by designation of Gahan and Fagan 1923.

Pachyscapha Howard 1897: 159. Synonymy by Peck 1951. Type species: *Pachyscapha insularis* Howard; by monotypy.

Rekabia Cameron 1904: 65. Synonymy by Kerrich 1974. Type species: *Rekabia testaceipes* Cameron, by monotypy.

Heteroscapus Brethes 1918: 9. Synonymy by De Santis 1981. Type species: *Heteroscapus ronnai* Brethes, by monotypy.

Euplectrus Crawford 1909, *Proc. US. Nam. Mus.* 41: 279.

Euplectrus Crawford 1914, *Philipp. J. Sci.* 1(9): 463.

Euplectrus Rohwer 1921, *Ann. Mag. Nat. Hist.* 7: 135.

Euplectrus Mani 1941, *Indian J. Ent.* 3: 25-36.

Euplectrus Ferriere 1941, *Bull. ent. Res.* 32: 33.

Euplectrus Bhatnagar 1952, *Indian J. Agr. Sci.* 21: 173.

Euplectrus Mukherjee 1975, *Mem. School Ent. Agra*, No. 4: 60.

Euplectrus Hussain and Khan 1986, *Orient. Ins.* 20: 221-223.

Euplectrus Boucek 1988, *Australasian Chalcidoidea*, 633-634.

Euplectrus Wijesekara and Schauff 1994, *Orient. Ins.* 28: 1-48.

Euplectrus Wijesekara and Schauff 1997, *Proc. Ent. Soc. Wash.* 99(11): 101-109.

Diagnosis: Genus *Euplectrus* was proposed by Westwood (1832) with the type species *E. maculiventris*. The genus can be easily distinguished from other allied genera by

the following combination of characters: scutellum without longitudinal grooves, which has mostly rather fine sculpture or is almost smooth; pronotum, rather short, dorsally with a fine transverse carina; hind tibia with at least one spur distinctly longer than basitarsus, thorax mostly with outstanding long bristles, funicle always segmented in female (Boucek 1988).

Discussion: The genus *Euplectrus* belongs to tribe Euplectrini, subfamily Eulophinae. It stands close to the genera *Euplectromorpha* Girault but differs from it in the above-mentioned diagnostic characters. The structure of propodeum in *Euplectromorpha* with two strong submedian carinae behind a distinct basal cup or, if latter is extended, with H-shaped carinae further separate the two genera. All recent workers have considered the genera *Diplectron* Dahlbom, *Pachyscapha* Howard, *Rekabia* Cameron and *Heteroscapus* Brethes to be synonyms of *Euplectrus* Westwood. Kerrich (1974) synonymized the genus *Rekabia* Cameron with *Euplectrus* Westwood. The distinguishing characters of the genus as proposed by Nikol'skaya (1952); Peck *et al.* (1964) and additional generic characters of pronotum, female genitalia and subgenital plate as proposed by Khan and Shafee (1980) apply well to the present species.

Recently, Wijesekara and Schauff (1994) revised the genera and species of the tribe Euplectrini (Eulophidae) and described eight *Euplectrus* species as new, namely *E. atrafacies*, *E. colliosilvus*, *E. geethae*, *E. itoralis*, *E. mellocoxus*, *E. nibilis*, *E. peechansis* and *E. xanthovulatus*. They transferred five species previously placed in this genus to other euplectrine genera as follows: *E. flavescens* Crawford = *Aroplectrus flavescens* (Crawford) comb. nov.; *E. phillippinensis* Ashmead = *Platyplectrus phillippinensis* (Ashmead) comb. nov.; *E. rugosus* Crawford = *P. rugosus* (Crawford) comb. nov.; and *E. japonicus* Ashmead = *P. japonicus* (Ashmead) comb. nov. They also removed *E. ornatus* from Euplectrini and placed as *Cirrospilus ornatus* (Mukherjee) comb. nov. (in Eulophinae).

Biology: Primary gregarious ectoparasitoids of caterpillars.

Distribution: Occurs in all biogeographical regions. Boucek (1988) estimated the number of species to be about 100. Most species are probably in the tropics. There are 12 species each in Australia and North America while 16 species are recorded from India.

Abbreviations used: FS1, FS2, FS3 and FS4 funicular segments 1-4; OOL- oculo-ocellar length, distance between lateral ocellus and eye margin; POL- postero-ocellar length, distance between lateral ocelli; MV- marginal vein; PMV- postmarginal vein; SMV- submarginal vein; SV- stigmal vein.

KEY TO SOME INDIAN SPECIES
OF THE GENUS *EUPLECTRUS* WESTWOOD

1. All legs, including their coxae uniformly coloured yellow or white 2
- Legs with differential colour black, brown, reddish brown, light brown or a combination of these 10
2. Pedicel armed with bristles 3
- Pedicel without any bristle 7
3. Pedicel with 5 long bristles, entire face dark brown, antennae light brown, scape about 7 times longer than wide, pedicel dark brown, club 2-segmented *E. pantnagarensis* sp. nov.
- Pedicel not more than 2 stout bristles, entire face black; scape less than 7 times longer than wide 4
4. Pedicel with 2 stout bristles 15
- Pedicel with only 1 bristle 5
5. Vertex shallowly and closely punctate face very finely and obscurely punctate; POL more than 3 times as great OOL; prominence between antennal toruli distinctly more than one-third the width of frons between eyes; antennal scape pale white, rest of the antennal segments hyaline light brown; only one very narrow anellus present; scape 3 times as long as wide, funicle segments subequal about 2 times as long as broad; club unsegmented, distinctly shorter than preceding 2 funicle segments combined, mesoscutum strongly, rugulose punctate anteriorly, the punctures not very well defined and virtually coalescent; scutellum and axillae minutely and shallow punctate; gaster mostly white except for a discontinuous centrally interrupted pale brown band apically, laterally and at the extreme base brown *E. maternus* Bhatnagar
- Vertex and face smooth, without punctuation; POL and OOL almost equal in length; prominence between antennal toruli slightly less than one-third the width of frons between eyes; scape uniformly white, pedicel, anelli and first 2 funicle segments yellow, rest of the flagellum infuscated; only two anelli present; scape 5 times as long as wide; FS1 longest, almost 1.5 times as long as wide, funicle segments 2-4 sub-equal in size; distinctly longer than wide; club 2 segmented longer than preceding 2 funicle segments together; thorax smooth without punctuation; gaster dark brown except a white patch on middle of dorsum *E. longiscapus* sp. nov.
6. Scutellum uniformly punctate; or punctate in the middle. ... 7
- Scutellum not likewise smooth 8
7. Gaster yellow above, with only the sides and a more or less complete transverse band before the end brown, antennae slightly brown at tip; ocelli very large; the lateral ocelli close to the eye margins than to the front ocellus, pubescence, whitish, funicle segments not sub-equal in length; scutellum uniformly finely longitudinally striate; propodeum smooth; petiole slightly broader than long *E. leucostomus* Rohwer
- Gaster black with a large yellow spot, without any transverse band; antennae uniformly yellowish white without infuscation at tip; ocelli small, widely separated from the eye margins; the OOL two-third as long as the POL; pubescence brown; funicle segments sub-equal in length; scutellum finely reticulate medially, reticulate lineate laterally; propodeum shining median furrow distinct, complete, petiole granular, longer than wide *E. euplexiane* Rohwer
8. Pedicel slightly longer than broad; gaster yellow with a transverse strip before the end, line on the sides of the second segment and the petiole brown; vertex almost smooth, cilia very scattered; antennae with scape rather short, not reaching to the median ocellus; funicle thicker, funicular segments subequal in length *E. parvulus* Ferriere
- Pedicel 2 times or about 2 times as long as wide and other character different 9
9. Gaster black with a rounded yellow spot; antennae brown, scape and pedicel yellow; vertex smooth; ocelli rather large, the lateral ocelli at about the same distance from the median ocellus as from the eye margins; scape narrow and elongate, but not reaching to the level of median ocellus; mesoscutum finely reticulate, without median carina, scutellum smooth; MV a little longer than the SMV; the longest hind tibial spur not quite as long as the first 2 tarsal joints together, petiole smooth, elongate, almost 3 times as long as broad *E. petiolatus* Ferriere
- Gaster yellow above, slightly more orange-yellow at tip, only 2 lines on the sides at base and the petiole black; antennae orange-yellow, brown towards tip, scape light yellow; pronotum very short; mesoscutum with irregular transverse striate; scutellum finely reticulate. *E. coimbatorensis* Ferriere
10. Pedicel distinctly longer than FS1 11
- Pedicel not likewise as long as or shorter than FS1 12
11. Gaster reddish brown in the middle; ocelli dark reddish brown; POL almost equal in length to OOL; malar space very long, almost 2 times the eye width; antennae dark brown except scape, pedicel and the anellus reddish brown, an anellus present; scape about 4 times as long as wide; funicle segments subequal in size; club unsegmented, equal to 1/2 of the preceding 2 funicle segments; mesoscutum and scutellum shallowly and closely punctate; the longer hind tibial spur distinctly longer than the

- length of basal 2 tarsal joint together
 *E. spodoptera* Bhatnagar
- Gaster dark brown with metallic bluish reflections on the dorsum; ocelli white; length of POL almost 2 times as much as OOL; malar space longer than eye width; antennae yellow with slight infuscation except scape uniformly white; three anelli present; scape slightly more than 5 times as long as wide; funicle segments gradually increasing in width distad; FS1 as long as FS2, FS3 shortest, a trifle longer than wide FS4 quadrate; club three segmented; almost as long as preceding two funicle segments together; mesonotum and scutellum without punctations; longest hind tibial spur shorter than the basal two joints together
 *E. viggianii* sp. nov.
12. Pedicel shorter than FS1 13
- Pedicel as long as FS1 14
13. Scape white, segment of funicle unequal; hind coxae completely black *E. bussyi* Crawford
- Scape brown, segments of funicle subequal; hind coxae black basally and reddish brown apically; body black except below antennae light brown and gaster with a light brown patch in the middle; vertex and face very finely and closely punctate, in low power appears to be met with fine grains; antennae brown except scape yellowish white; 2 anelli present.
 *E. mathuri* Bhatnagar
14. Mesoscutum coarsely reticulate medio-posteriorly, finely and lineately shagreened antero-laterally, without a median line or furrow; head without punctures; scutellum faintly longitudinally striate; funicle segments gradually increasing in length, the FS4 somewhat shorter than FS3, club entire
 *E. utethesia* Mani and Kurian
- Midlobe of mesoscutum reticulately rugose, at rear medially with 1 or 2 longitudinal rugae, which extend forward about one-third the length of mesoscutum; scutellum basally indistinctly reticulate *E. nyctemerae* Crawford
15. Light brown with white scape, and pedicel; gaster light yellow except tip, sides and petiole black; petiole rather long, 2 times as long as broad or little less, longer spur of hind tibia reaching 0.66 the length of first two tarsal segments together.
 *E. ceylonensis* Howard
- Yellowish brown antennae except scape white with infuscation, gaster dark except with a broad yellow patch on mid dorsum before apex petiole short as long as wide, longer spur of hind tibia equal to the length of first two tarsal segments together.
 *E. dubeyi* sp. nov.

Euplectrus pantnagarensis sp. nov.
 (Figs 1-11)

Female: Dark brown; head lustrous dark brown, eyes reddish brown; antennae light brown; thorax dark brown with purplish reflections; wings hyaline; legs yellow; gaster dark brown.

Head (Fig. 1): Smooth except upper part of the frons very finely reticulate; wider than long in facial view (0.58: 0.43), frontovertex less than 3 times wider than long (0.36: 0.19), ocelli arranged in obtuse angled triangle; POL: OOL 0.10: 0.11; antennal toruli just at the lower level of eyes, distance between antennal toruli situated (0.08) more than 1/4th the width of frons; malar sulcus absent; length of malar space (0.19) much more than the eye width (0.11); maxillary palp and labial palp two and one segmented respectively. **Antennae** (Fig. 4): Scape cylindrical, apex of scape reaching up to the median ocellus, about 7 times longer than wide (0.25: 0.035), pedicel dark brown, short, more than 2 times longer than wide (0.09: 0.035), 2 anelli present; funicle 4 segmented, subequal in size except the FS1 short (0.13: 0.55), numerous sensilla and hairs present.

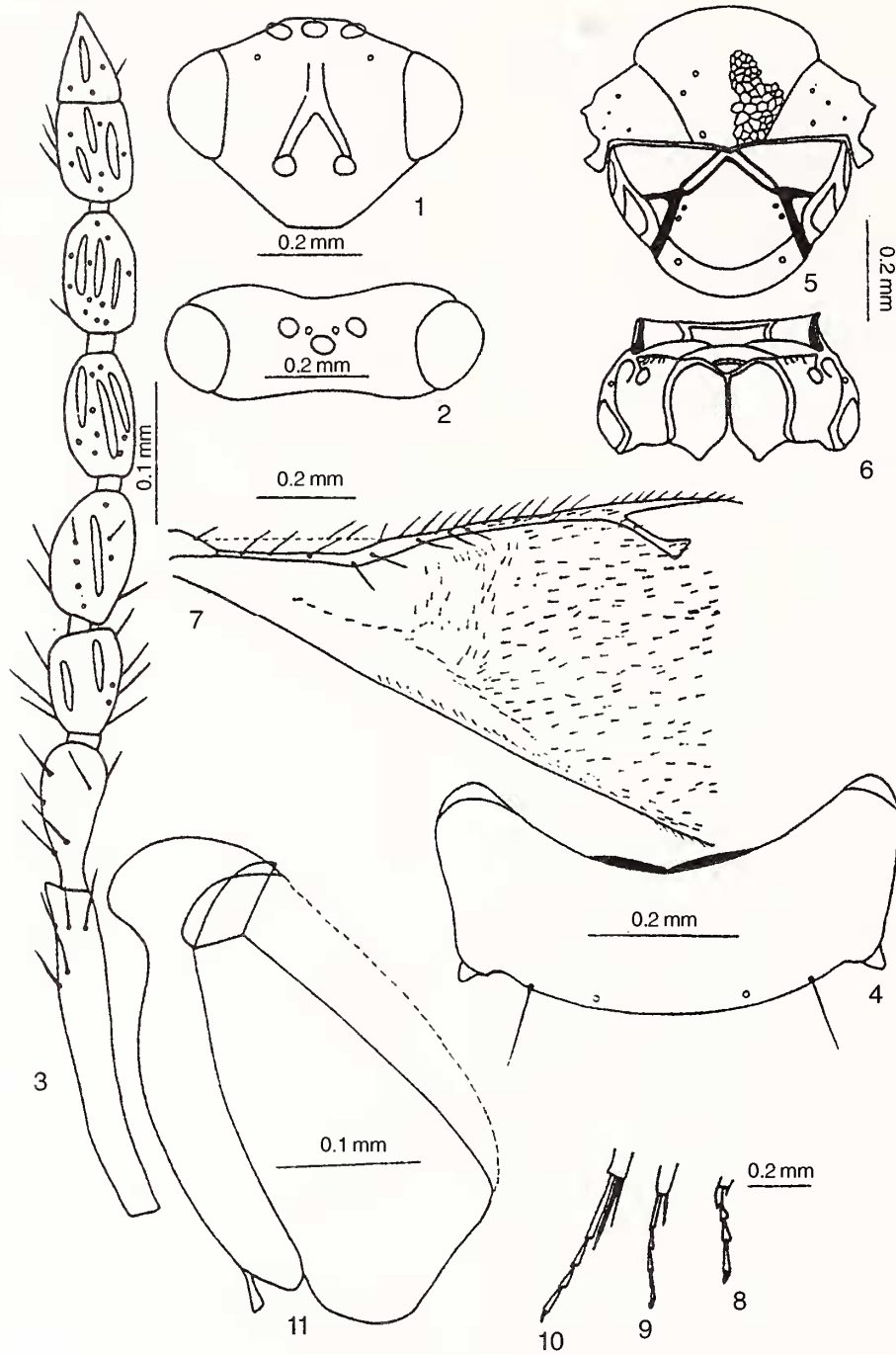
Thorax (Fig. 5): Pronotum reticulate and deeply notched at the anterior margin, posterior margin convex with 2 pairs of long setae (Fig. 6), mesoscutum more than 2 times wider than long (0.59: 0.28) with 6 pairs of setae, midlobe coarsely and strongly reticulate, scutellum smooth; axillae triangular and weakly reticulate, scutellum slightly wider than long (0.31: 0.16) with blunt apex, metanotum, band like, propodeum expanded on sides, median and submedian carinae and plicae prominent, sides of the propodeum with 3 long setae. **Forewings** (Fig. 7): more than 2 times longer than wide, SMV long (0.34) with 5 long setae, MV much longer (0.51); PMV longer than SV (0.21: 0.15), costal cell narrow, speculum broad and closed below, basal triangle hyaline, disc uniformly setose, marginal fringes moderate. **Hind wings:** more than 4 times longer than wide, tapering at the apex, marginal fringes long. **Legs** (Figs 8-10): hind legs with 2 tibial spurs; first tibial spur longer than basitarsus, remaining legs normal.

Gaster: Petiole slightly longer than wide; first valvifer triangular (Fig. 11) semicircular, second valvifer uniform in width, curved; third valvulae rudimentary, outer plate of ovipositor much enlarged, narrow at the base, much broadened at the apex, apex dark brown with a long setae, dorsal marginal ridge present throughout the length.

Male: Not known

Material Examined: Holotype: ♀. INDIA: Uttaranchal, Nainital, Pantnagar, CRC, host unknown, sweep net collection on Pigeon Pea. 2.xii.1990. Hym: Eulo. Nr. 1001 (S.N. Sushil). **Paratypes:** 4 ♀♀, data same as holotype. Hym: Eulo. Nr. 3029b (S.N. Sushil). Holotype and Paratypes have been deposited in the Entomological Museum, G.B.P.U. A & T, Pantnagar, India.

Etymology: The species name is derived from the type locality.



Figs 1-11: *Euplectrus pantnagarensis* sp. nov.

1. Head in frontal view, 2. Head in dorsal view, 3. Antenna, 4. Pronotum, 5. Thorax in dorsal view, 6. Propodeum, 7. Part of fore wing, 8. Part of fore leg, 9. Part of mid leg, 10. Part of hind leg, 11. Female genitalia

Euplectrus dubeyi sp. nov.

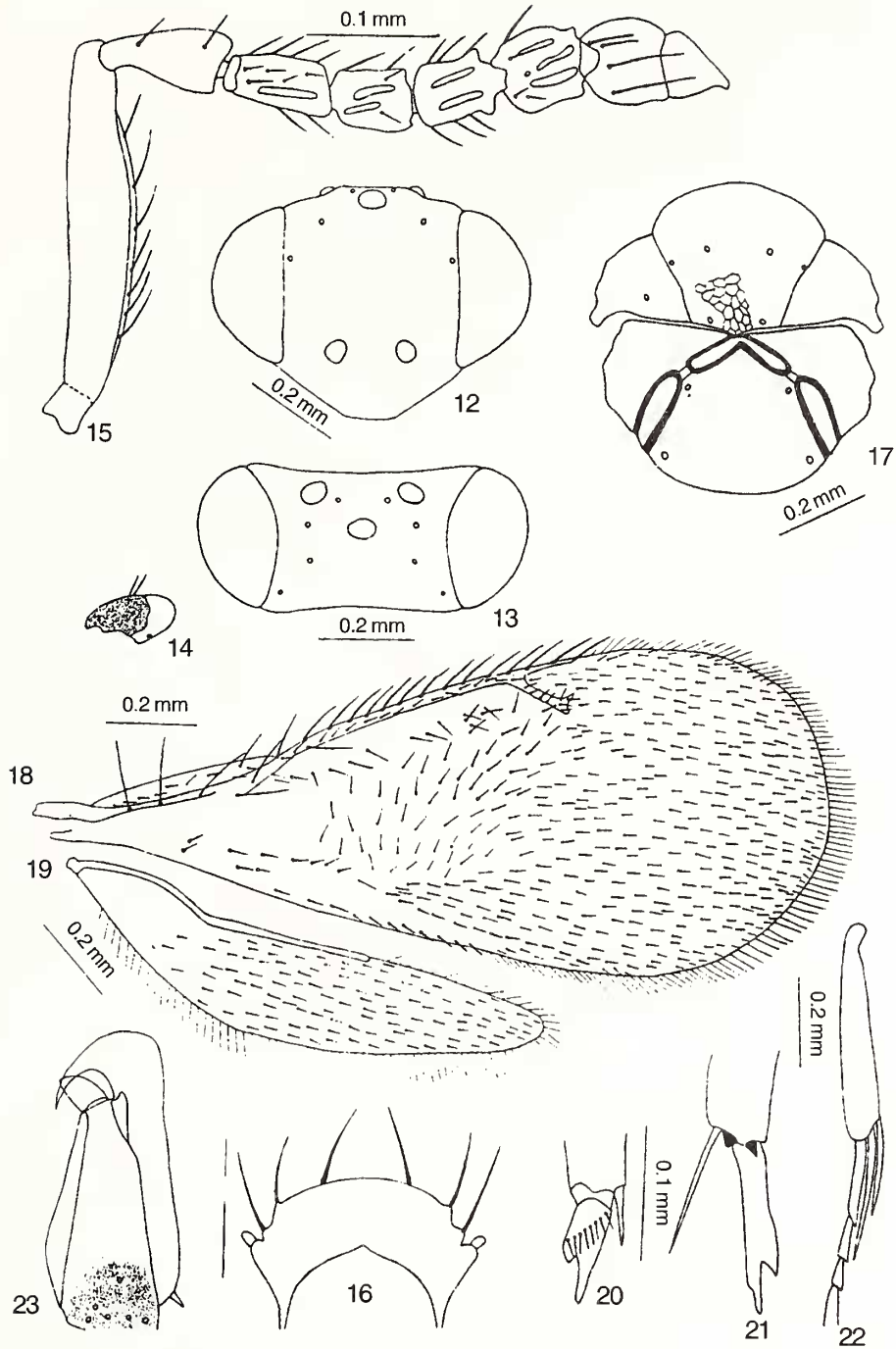
(Figs 12-23)

Female: Body length about 2.12 mm; general body colour black with metallic reflections; head black with slight metallic reflections except clypeal region and scape white with infuscation; thorax dark with metallic green reflections; wings

hyaline; legs uniformly honey yellow; gaster dark except a broad yellow patch on mid dorsum.

Head (Fig. 12): Smooth except upper part of the frons weakly reticulate; frontovertex more than 2.4 times as wide as long (0.69:0.29); head in dorsal view more than 1.3 times as wide as long (0.67:0.50); ocelli arranged in obtuse angled triangle; POL:OOL 0.15:0.07; width of frons more than 3.5 times

NEW DESCRIPTIONS



Figs 12-23: *Euplectrus dubeyi* sp. nov.

12. Head in frontal view, 13. Head in dorsal view, 14. Mandible, 15. Antenna, 16. Pronotum, 17. Thorax in dorsal view, 18. Forewing, 19. Hind wing, 20. Part of fore leg, 21. Part of mid leg, 22. Part of hind leg, 23. Female genitalia

the distance between antennal toruli; antennae inserted just at the lower level of eyes; scape not reaching up to the level of median ocellus; maxillary palp and labial palp two and one segmented respectively. Malar sulcus absent, length of malar space times the eye width; mandible bidentate *Antenna* (Fig. 15): 8 segmented excluding broad anellus; scape slightly dilated with long setae, more than 5 times as long as wide (0.28: 0.05);

pedicel with 2 strong and 2 small setae, slightly 2 times as long as wide (0.09: 0.045), slightly longer than FS1; funicle 4 segmented, FS1 less than 2 times as long as wide (0.07: 0.04), longer than each succeeding segment, FS2 and FS4 sub-equal in size (0.06: 0.05), slightly longer than wide, club 2 segmented, less than 2 times as long as wide (0.11: 0.065), slightly shorter than preceding two funicle segments together.

Thorax (Fig. 17): Pronotum with anterior margin deeply concave in middle and reticulate (Fig. 16), anterolateral arms long and narrow, posterior margin much convex bearing 3 pairs of long setae; mesoscutum wider than long (0.59: 0.34), midlobe weakly reticulate anteriorly and strongly posteriorly, and with 4 pairs of setae; scutellum distinctly wider than long (0.40: 0.31), with 2 pairs of setae and round at apex; axillae smooth; propodeum less than 3 times as wide as long (0.62: 0.22), with prominent median carina and plicae, spiracles separated by a space more than one half the length of a spiracle. *Forewings* (Fig. 18): more than 2 times as long as wide (1.69: 0.72) with round apex; costal cell long, broad with 9 setae in row; SMV with 5 long setae, 4 upward and 1 downward, slightly shorter (0.48) than MV (0.53); MV with 13 setae; SV more than (0.14) 1/3rd the length of MV and slightly longer than PMV (0.12); basal cell bare; speculum narrow and closed below; cubital vein almost straight; subcubital line of hairs starting from the base of cubital vein; marginal fringe short, spaced by a distance less than 1/2 of their length. *Hind wings* (Fig. 19): 5 times as long as wide; marginal fringes spaced by a distance equal to 1/2 of their length. *Fore legs* (Fig. 20): basitarsus with an oblique row of 8 setae; tibial spur much shorter. *Middle legs* (Fig. 21): apical rim of tibiae with 2 pegs tibial spur long. *Hind legs* (Fig. 22): characterized by the presence of two long tibial spur, longest tibial spur (0.32) equal to the length of basal 2 tarsal segments together, shortest tibial spur (0.22) sub-equal in length to the first basal segment.

Gaster: Petiole short as long as broad; ovipositor slightly concealed arising from apical one third of gaster; first valvifers triangular (Fig. 23) with basal margin concave; second valvifers on uniform width, almost 8 times as long as wide (0.39: 0.05); third valvulae rudimentary (0.02) (Fig. 23), articulated with the second valvifers; outer plates of ovipositor narrow at the base, widened at apex, median longitudinal ridge well extended to the apex of outer plates of ovipositor.

Male: Not Known.

Material Examined: Holotype: ♀. INDIA: Uttar Pradesh, Rampur, host unknown, sweepnet collection, mango trees; 26.x.1990. Hym: Eulo. Nr. 1002 (R.S.J. Singh). **Paratypes:** 3 ♀ ♀, data same as holotype. Hym: Eulo. Nr. 1002 (R.S.J. Singh). Holotype and Paratypes have been deposited in the Entomological Museum, G.B.P.U. A & T, Pantnagar, India.

Etymology: The species is named in honour of Dr. O.P. Dubey, ADG (PP) ICAR, Govt. of India, New Delhi for his contribution to promoting Insect taxonomy in India.

Euplectrus viggianii sp. nov.

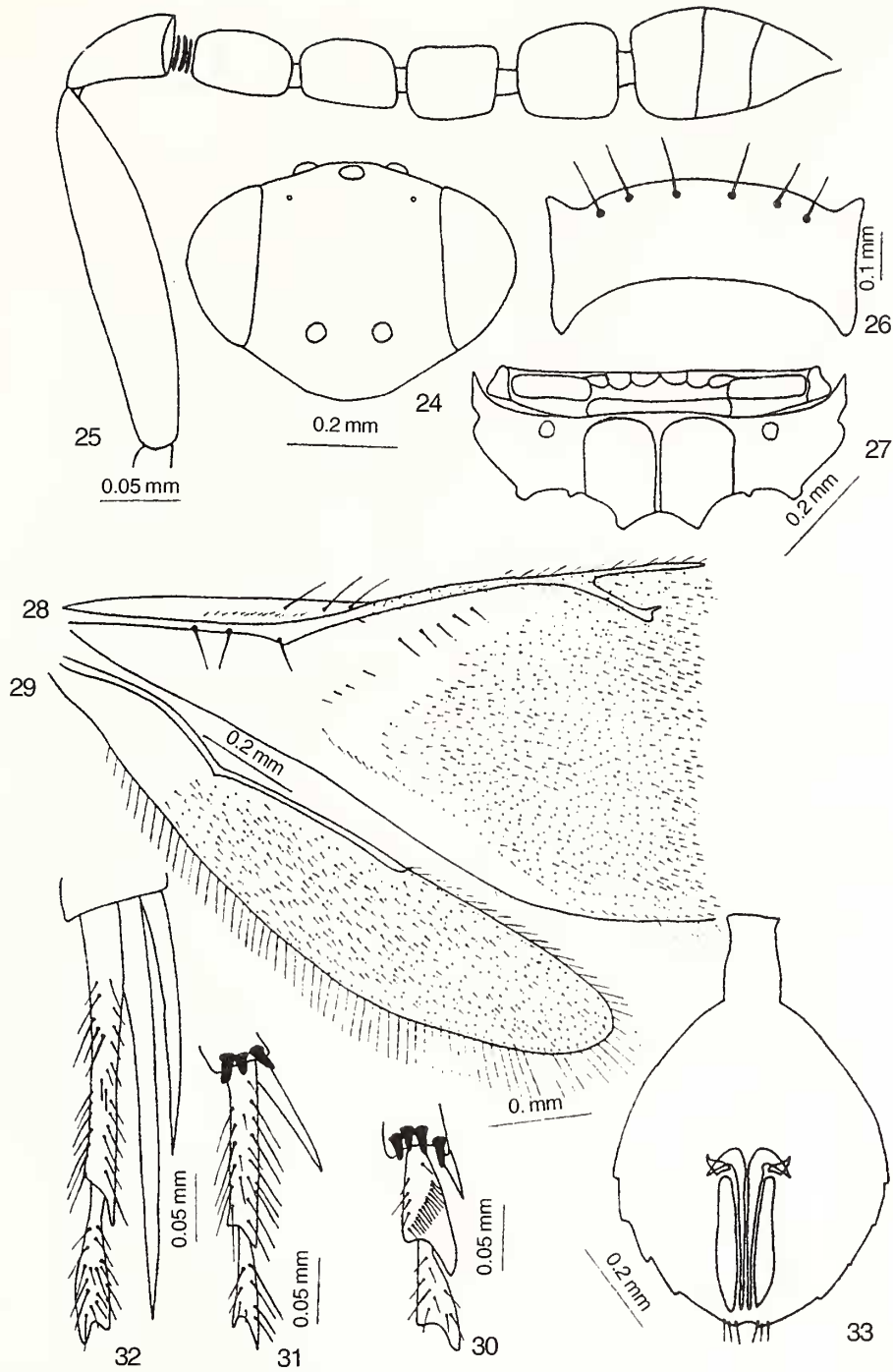
(Figs 24-33)

Head (Fig. 24): Dark brown with metallic bluish reflections, wider than long (0.61:0.44); finely reticulate with

punctures on frontovertex width less than 2 times the total head width (0.34:0.61); ocelli white arranged in obtuse angled triangle; POL:OOL 0.12:0.07; antennal toruli slightly above the lower level of eyes; apex of scape not reaching up to the median ocellus; prominence between antennal toruli less than 1/4th the width of frons between eyes (0.09:0.34); malar sulcus absent, length of malar space longer than the eye width (0.15:0.13); maxillary palp and labial palp two and one segmented respectively. *Antennae* (Fig. 25): yellow with slight infuscation, except scape uniformly whitish, nine segmented excluding 3 anelli; scape cylindrical, slightly more than 5 times as long as wide (0.22:0.05); pedicel less than 2 times as long as wide (0.09:0.05), distinctly longer than FS1, funicle 4 segmented, segments gradually increasing in width distad, FS1 (0.07:0.045) as long as FS2 (0.07:0.055), FS3 shortest, a trifle longer than wide (0.065:0.06), FS4 quadrate (0.07:0.07), club 3 segmented, slightly more than 2 times as long as wide (0.0165:0.08), almost as long as preceding two funicle segments together.

Thorax: Dark brown with metallic bluish reflections and pronotum (Fig. 26) with anterior margin deeply concave in the middle, anterolateral arms moderate, posterior margin convex bearing 3 pairs of long setae, posterolateral grooves deep, side projections raised, developed; mesoscutum with 3 pairs of long bristles wider than long scutellum smooth longer than wide and 3 pairs of bristles; axillae weakly reticulate propodeum with a median carina. *Forewings* (Fig. 28): Hyaline almost 2.5 times as long as wide (1.8:0.7); costal cell broad and long with 3 long and 15 small setae; SMV (0.61) with 4 strong setae, longer than MV (0.36), SV (0.18) 1/2 the length of MV and distinctly shorter than PMV (0.27); marginal fringe short, spaced by a distance equal to 1/3rd of their length. *Hind wing:* (Fig. 29) hyaline, less than 5 times as long as wide (1.3:0.28), blunt at apex; marginal fringe spaced by a distance equal to 1/2 of their length. *Fore legs* (Fig. 30): uniformly yellowish with slight infuscation, tibial spur shot, apical rim of tibiae with four stout pegs, basitarsus with an oblique row of small setae on dorsal surface. *Middle legs* (Fig. 31): Uniformly yellowish, femora with a long, strong setae at apical end; tibial spur shorter than basitarsus; apical rim of tibiae with 3 stout pegs. *Hind legs* (Fig. 32): Uniformly yellow except coxae with slight infuscation, tibiae with two strong tibial spurs; longest tibial spur shorter than the length of basal two tarsal joints together.

Gaster (Fig. 33): Dark brown with metallic bluish reflections on the dorsum; petiolate, petiole, almost 1.5 times as long as wide; ovipositor concealed, arising from apical one third of gastral venter, first valvifers triangular with basal and apical angles at different level, basal margin concave, second valvifers of uniform width and continuous with the third



Figs 24-33: *Euplectrus viggianii* sp. nov.

24. Head in frontal aspect, 25. Antenna, 26. Pronotum, 27. Propodeum, 28. Forewing, 29. Hind wing, 30. Fore leg, 31. Middle leg, 32. Hind leg, 33. Gaster

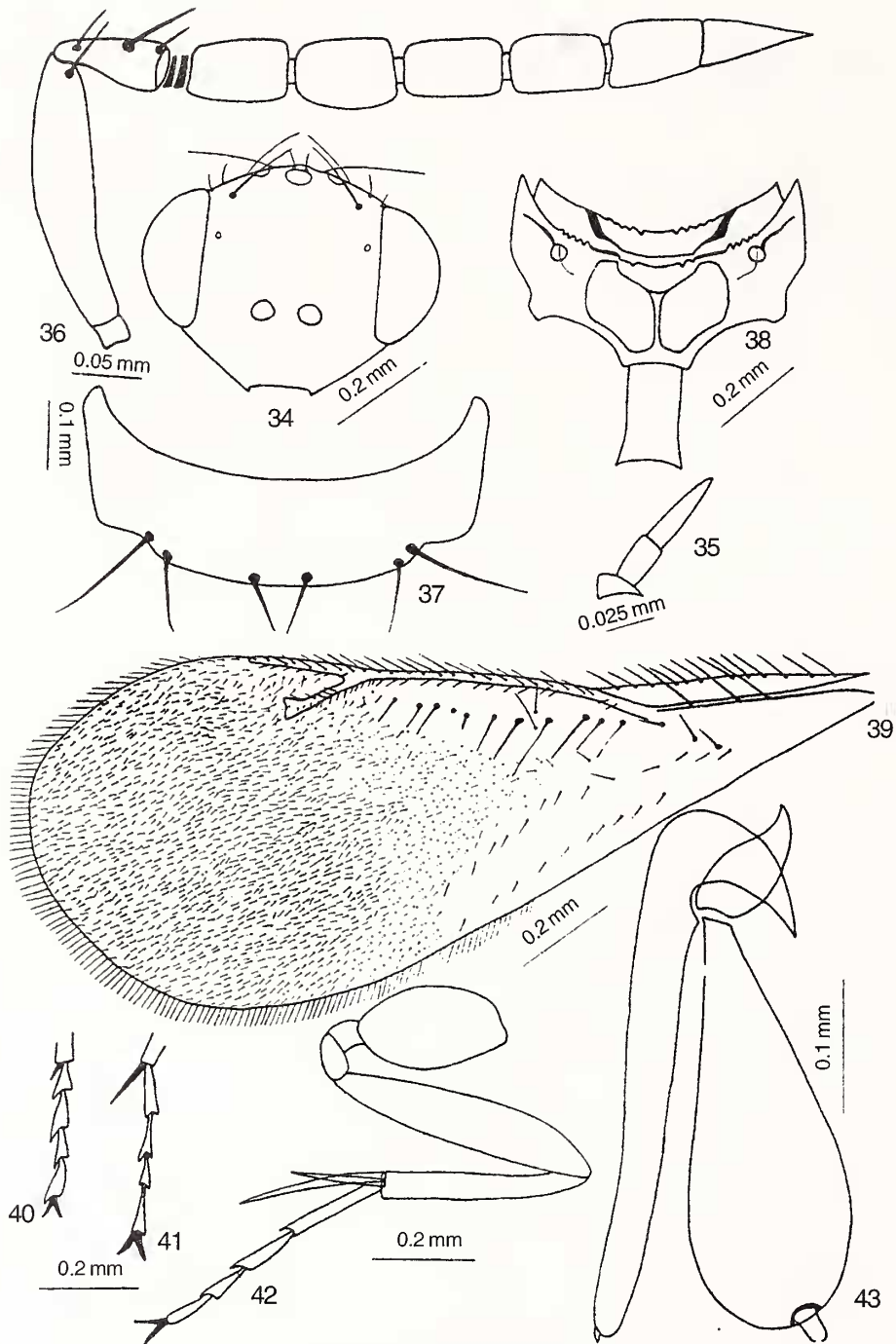
valvulae, outer ovipositor narrow at base, widened at apex; subgenital plate of uniform width, anterior margin straight posterior margin with a wide notch in the middle.

Length: 1.81 mm.

Male: Not Known.

Material Examined: **Holotype:** ♀. INDIA: Uttar Pradesh,

Pilibhit. *Merasmia trapezalis* (Guen.) (Lepidoptera: Pyraustidae) on *Zea mays*. 1.viii.1989. Hym: Eulo. Nr. 4001 (M.A. Khan). **Paratypes:** 10 ♀♀, data same as holotype. Hym: Eulo. Nr. 4002 (M.A. Khan). Holotype and Paratypes have been deposited in the Entomological Museum, G.B.P.U. A & T, Pantnagar, India.



Figs 34-43: *Euplectrus longiscapus* sp. nov.

34. Head in frontal aspect, 35. Maxillary palp, 36. Antenna, 37. Pronotum, 38. Propodeum, 39. Fore wing, 40. Part of fore leg, 41. Part of mid leg, 42. Hind leg, 43. Ovipositor

Etymology: The species is named in honour of Professor G. Viggiani, University of Naples, Portici, Italy, for his outstanding contribution to the Family Eulophidae.

Euplectrus longiscapus sp. nov.

(Figs 34-43)

Head (Fig. 34): Dark brown with metallic reflections, sparsely setose; finely reticulate, wider than long in facial view

(0.55:0.43); frontovertex less than 3 times as wide as long (0.63:0.22), vertex with 6 very long setae; ocelli pale, arranged in obtuse angled triangle, POL: OOL 0.14: 0.09; eyes dark brown and smooth; antennae inserted well above lower level of eyes; prominence between antennal toruli slightly more than 1/4th the width of frons between eyes (0.08: 0.33); apex of the scape not reaching up to the median ocellus; malar sulcus absent; length of malar space longer than eye width (0.18:0.11);

mandibles bidentate maxillary palp (Fig. 35) and labial palp two and one segmented respectively. *Antennae* (Fig. 36): Scape white, pedicel, anelli segments and first two funicle segments yellow and rest of the flagellum infuscated; uniformly setose; pedicel with a very long setae; 8-segmented excluding 2 anelli; scape cylindrical, 5 times as long wide (0.2:0.05); pedicel 2 times as long as wide (0.08:0.04), as long as FS1; funicle 4-segmented; FS1 longest and less than 1.5 times as long as wide (0.08:0.05), FSs 2-4 subequal in size (0.07:0.055); club 2 segmented, less than 3 times as long as wide (0.15:0.055), longer than preceding two funicle segments together.

Thorax: Dark with metallic reflections and reticulate sculpture; pronotum (Fig. 37) with anterior margin concave in the middle, anterolateral arms moderately long, not much narrow, posterior margin convex bearing 6 long setae; notauli well developed; mesoscutum wider than long; scutellum longer than wide; side lobe, mesoscutum and scutellum with 2, 4 and 4 long strong setae respectively; axillae bare; propodeum (Fig. 38) with a median carina. Forewings (Fig. 39): hyaline, less than 3 times as long as wide (1.68:0.68); costal cell broad, setose, setae arranged in an apical row, 12 in number; basal vein with 3 setae; basal cell bare; speculum short, closed below; cubital vein sinuate; 10 admarginal hairs present; SMV (0.57) longer than MV (0.5); PMV (0.19) longer than SV (0.17); marginal fringe short, spaced by a distance equal to 1/3rd of their length. *Hind wings:* Hyaline, more than 5 times as long as wide with apex blunt; sparsely setose; marginal fringe short, spaced by a distance equal to 1/2 their length. *Legs* (Figs 40-42): yellow, apex of each femora with a long setae; mid tibial spur as long as basitarsus (Fig. 41); hind legs with two stout tibial spurs (Fig. 42), longest tibial

spur shorter than the length of basal two tarsal segments together.

Gaster: (Fig. 43) Dark brown except a white broad patch on middle of dorsum; densely setose, petiolate, petiole less than 2 times as long as wide; ovipositor concealed, arising from apical 1/3rd of gaster; first valvifers (Fig. 43) triangular with basal and apical angles at different levels, basal margin concave; second valvifers (Fig. 43) of uniform width; third valvulae (Fig. 43) rudimentary, articulated with second valvifers; outerplates of ovipositor (Fig. 43) narrow at base, widened at apex, subgenital plate of uniform width, anterior margin straight, posterior margin with a wide notch in the middle.

Length: 1.75 mm.

Male: Not known.

Material Examined: Holotype: ♀. INDIA: Uttaranchal, Nainital, Pantnagar ex. *Lamprosema indicata* (Fabr.) (Lepidoptera: Pyraustidae) on *Phaseolus aureus* (Green Gram) 6.iii.1994. Hym: Eulo. Nr. 1003 (M.A. Khan). **Paratype:** ♀, data same as holotype. Hym: Eulo. Nr. 1003 (M.A. Khan). Holotype and Paratypes have been deposited in the Entomological Museum, G.B.P.U. A. & T., Pantnagar, India.

Etymology: The species name is from the long nature of the scape.

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*Original not seen

